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# VEHICLE OVER SPEED INDICATION TO TRAFFIC CONTROL ROOM THROUGH GSM

## ABSTRACT

This GSM Modem can accept any GSM network operator SIM card and act just like a mobile phone with its own unique phone number. Advantage of using this modem will be that you can use its RS232 port to communicate and develop embedded applications. Applications like SMS Control, data transfer, remote control and logging can be developed easily. The modem can either be connected to PC serial port directly or to any microcontroller. It can be used to send and receive SMS or make/receive voice calls. It can also be used in GPRS mode to connect to internet and do many applications for data logging and control. In GPRS mode you can also connect to any remote FTP server and upload files for data logging.

This GSM modem is a highly flexible plug and play quad band SIM300 GSM modem for direct and easy integration to RS232 applications. Supports features like Voice, SMS, Data/Fax, GPRS and integrated TCP/IP stack.

The main aim of the project is to measure the speed of vehicles and to intimate it to the traffic control room, if the vehicle exceeds its maximum speed limit. Here we will place two IR transmitter receiver pairs with some distance, along the road. And by calculating the time difference between the activation of two IR receivers as per the code logic, the speed of the vehicle can be calculated. So now we will design the project in such a way that the controller will be interfaced to the two IR receivers and to the GSM modem through a line driver IC MAX232 for serial communication. Here GSM modem is used to send the SMS to the control room to intimate about the over speeds. If any vehicle crosses the speed limit means the time between the activation of two IR sensors is less than the time limit, the GSM modem sends corresponding data to the control room as per the code logic. Here a 16X2 LCD will also be interfaced to the controller to display the speed status of the vehicle.

Here we use 8051 as a microcontroller with 5v DC Power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/12V step down transformer. Serial (UART) protocol is

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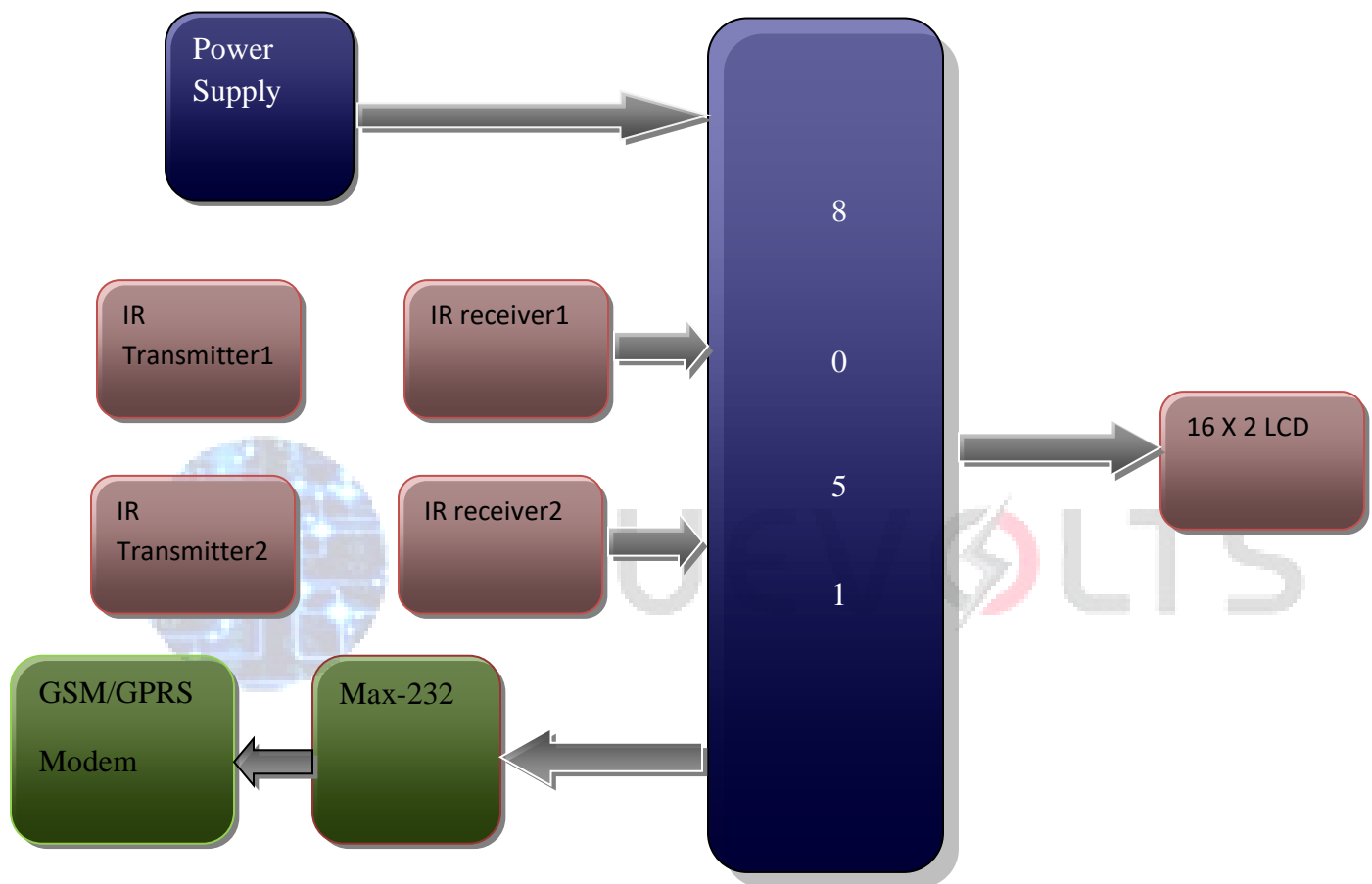
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primary concern here. The main heart of this project is GSM/GPRS modem and it work on GPRS AT commands.

## APPLICATION

- transportation

## BLOCK DIAGRAM:



## POWER SUPPLY BLOCK DIAGRAM

